



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,243	01/12/2001	Karl Steiner	P20400	7866

7055 7590 02/03/2003

GREENBLUM & BERNSTEIN, P.L.C.  
1950 ROLAND CLARKE PLACE  
RESTON, VA 20191

EXAMINER

FORTUNA, JOSE A

ART UNIT	PAPER NUMBER
----------	--------------

1731

DATE MAILED: 02/03/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-9

**Office Action Summary**Application No.  
**09/758,243**Applicant(s)  
**Steiner et al.**Examiner  
**José A. Fortuna**Art Unit  
**1731**

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above, claim(s) 24-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20, 22, and 23 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_                      6) ☐ Other:

Art Unit: 1731

## **DETAILED ACTION**

### ***Claim Rejections - 35 U.S.C. § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

2. Claims 2, 4-13 and 18-20 are rejected under 35 USC §102(b) as being anticipated by Kade, US Patent No. 5,851,358. This rejection is set forth in the prior Office action paper number 7.

### ***Claim Rejections - 35 U.S.C. § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 3, 14-17, and 22-23 are rejected under 35 USC §103(a) in view of Kade. This rejection is set forth in the prior Office action paper number 7.

Art Unit: 1731

*Response to Arguments*

5. Applicant's arguments filed on November 21, 2002 have been fully considered but they are not persuasive.

Applicants argue that the cited reference, Kade, does not teach applying suction to drain the water, but to drain air and cite a paragraph of the applied patent which teaches away from using a pump to draw the water. This is no convincing because the device of the reference indirectly draws the water from the first chamber by suctioning the air from the second chamber, see column 4, lines 40-60, see below, emphasis added. There is nothing in the claims, except for claim 21, that limits the claims to a direct pump.

**Vacuum generating device 46 is mounted on top of cyclone separator 44 and generates a vacuum within suction chamber 42 to draw the liquid within suction chamber 42 into cyclone separator 44.** In the embodiment shown, vacuum generating device 46 is in the form of a centrifugal blower 46 which is mounted on top of cyclone separator 44. The centrifugal blower blows air from a discharge nozzle 58 into the ambient environment. The air originates from the inlet to suction chamber 42 and is drawn through suction chamber 42, outlet 50 and into separator 44 along with the water from suction chamber 42. The water falls via gravitational force and exits through the outlet 54 of cyclone separator 44. The air, on the other hand, separates from the water and travels through centrifugal blower 46 to the ambient environment, as indicated by arrows 62. If a liquid pump was used to pump the water within suction chamber 42 and

Art Unit: 1731

create a vacuum within suction chamber 42, fibers within the water would likely build up on the pump and inhibit operation of the pump. On the other hand, the air which is separated from the water in separator 44 and flows through blower 46 is relatively free of fibers.

Applicants also argue with respect to the dependent claims, that reference does not teach that the different variables are or could be result effective variables and therefore, stating optimization steps is insufficient to support the rejection. This is also not convincing, because it has been held that “[R]eferences are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures.” In re Bozek, 163 USPQ 545 (CCPA) 1969. In this case, one of ordinary skill in the art would recognize that dimension of the pipes would affect the volumetric flow rate of the drainage liquid. This is also shown by the continuity and momentum equations in flow through pipes, i.e. Navier-Stokes equations including its simplified version the Bernoulli’s equation of flow through pipes. Both of those equations can be found in any flow dynamic text book.

***Allowable Subject Matter***

6. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 1731

7. The following is a statement of reasons for the indication of allowable subject matter: the closest reference Kade does not teach nor fairly suggests the use of a volumetric pump for sucking the water from the first chamber..

8. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to José Fortuna, whose telephone number is (703)305-7498. The examiner can normally be reached on Monday-Friday from 9:30 A.M. to 5:30 P.M.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin, can be reached on (703)308-1164. The fax number for this group is (703)305-7115.

Art Unit: 1731

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703)308-0661.

When filing a FAX in group 1730, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

José A. Fortuna  
January 26, 2003

  
**JOSÉ FORTUNA**  
**PRIMARY EXAMINER**  
**ART UNIT 1731**